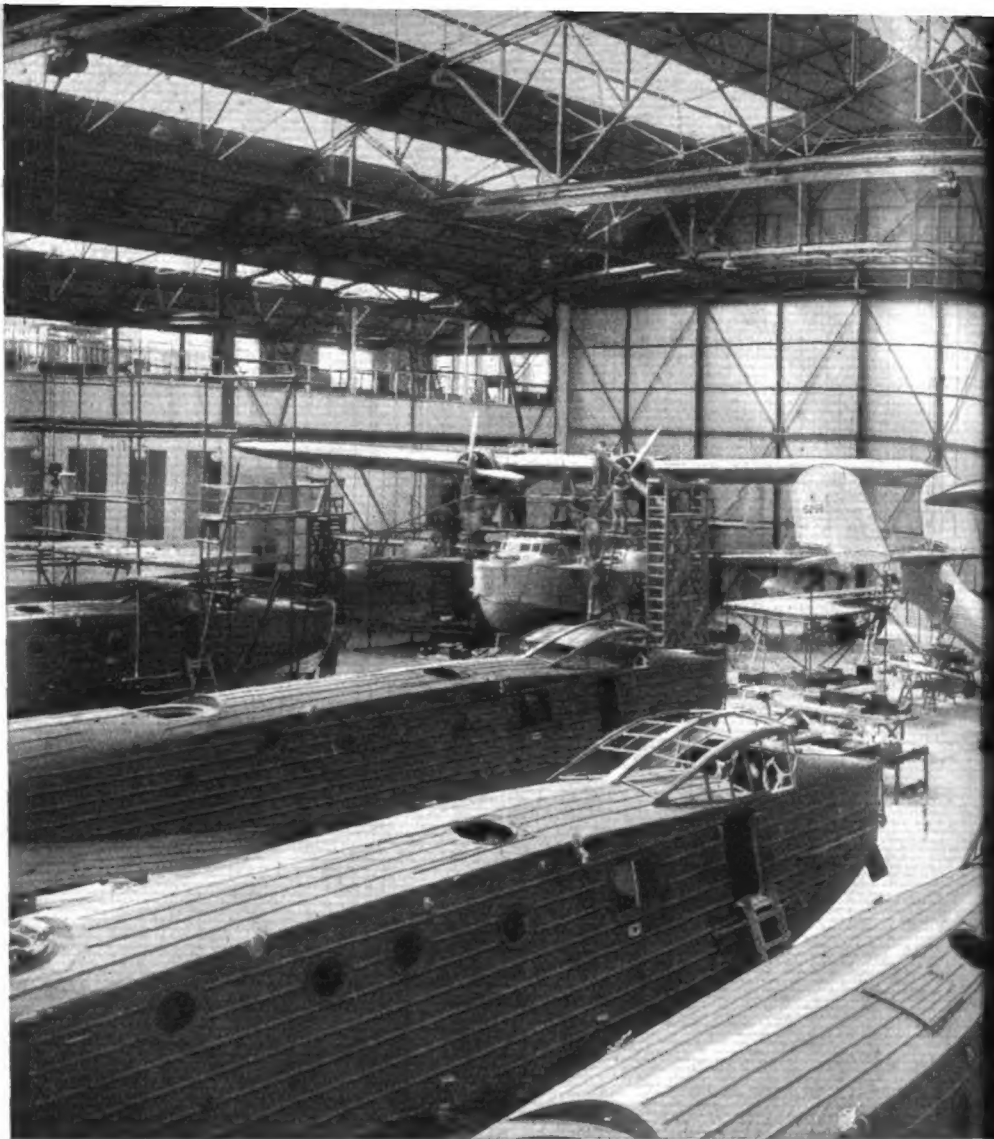


**THE NEW FACTORY** is executing an order for the firm's "London" flying boats. The main shop can accommodate 10 to 12 units at one time in various stages. On the ground floor under the East Gallery are assembly fitting operations, mechanical testing department equipped with all modern test instruments. Under the West Gallery are Dope and Covering Shops of ample dimensions for large wing components. On the East Gallery is the sheet metal working department, and liquid fuel and oil tanks, fairings, wing tip floats and stowage fittings in course of manufacture are in evidence. On the West Gallery are accommodated the sewing room, with the latest machines, and also the metal wing assembly. The office block of three floors houses on the first floor the executive offices and the Aeronautical Inspection Bureau. On the ground floor there are the finished part store and the free issue or bonded store. The second floor is devoted to the mould loft, lecture and school room, and the parachute assembly department. The Chief Pilot's office and Pilot's kit room are located in a small building convenient to the slipway. The main erecting shop provides a clear space of 150ft. x 200ft. with a height of 40ft. achieved by means of main roof trusses spaced at 50ft. centres, which support secondary lattice girders and rafters carrying the corrugated asbestos-cement covering. Provision for future extension is made, the main stanchions on one side being designed to support another similar 150ft. span roof. The east, west and south walls are of local bricks harmonising with the surroundings. On the Solent front, a striking elevation is obtained by white cement rendering to the front facade and pylons. The main shop, galleries and office block are lighted both from the roof and sides. The roof lighting consists of plate glass in lead-covered steel frames measuring nearly 50% of the floor area. On the sides the lighting through steel sashes is practically continuous.

**THE MAIN ROOF** trusses support tracks for electrically operated travelling hoists. The galleries are arranged under lean-to roofs of 30ft. span. On the south side of the main shop the office block, measuring 200ft. x 40ft., is arranged under a single-span roof. An important

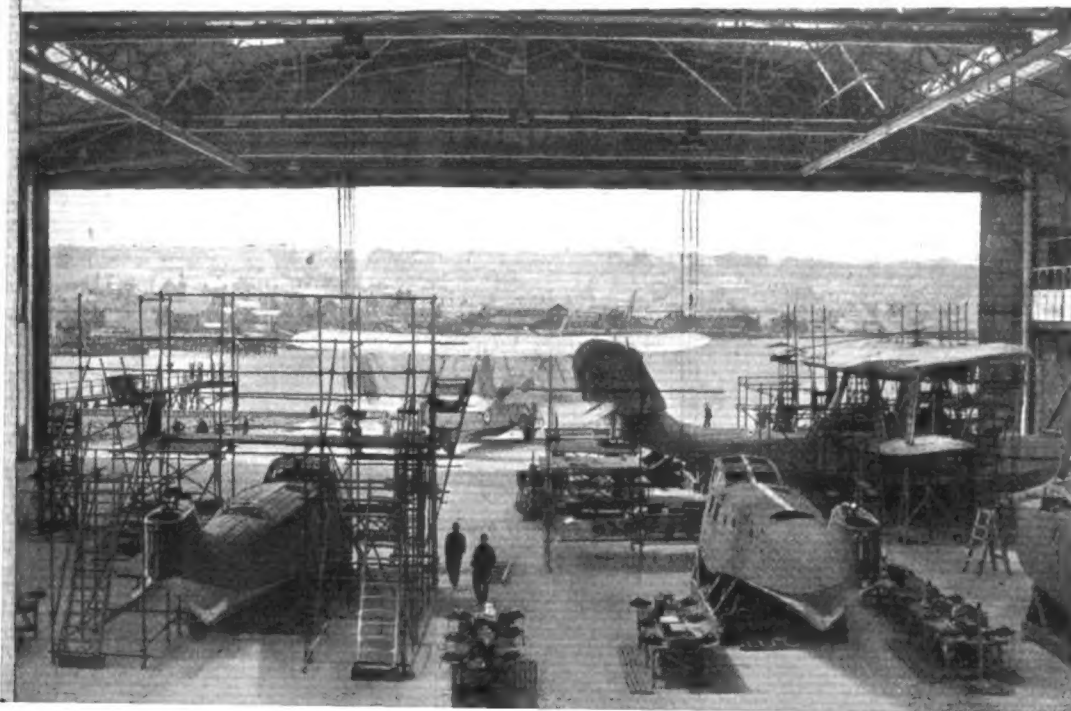


The Main Shop devoted to erection of machines

feature is the door opening of 150ft. clear width, 40ft. height. The six steel-framed sliding doors each weigh five tons; they are provided with hand gearing and are easily moved by one man; the doors are covered with aluminium coloured asbestos protected metal sheeting.

**BRITISH STEEL.** About 500 tons of steel was used in the building. High tensile steel was made use of in the principal members in order to reduce the deadweight on the foundations. All the steel is of British Manufacture, and the loadings are in accordance with British Standard Specification. Provision has been made in the structure to take care of the severe pressures on the building caused from high south-westerly and north-easterly winter gales. The total load of the building transmitted to the piled foundations by the stanchions is about 2,200 tons. The ground floor load is carried directly on the soil. Long spans and heavy loads made the question of foundations an important one. It was therefore decided to put down a number of bore holes on the site and have recourse, if the results of these holes were found to justify it, to the use of piled foundations. The bores disclosed in all cases a subsoil of varying soft clay, growing gradually harder as the depth increased until a rock stratum was found some 30ft. below ground level.

The foundations for the main building consisted of pre-cast reinforced concrete piles of 12in. and 14in. square section varying in length from 26 to 32ft. The heads of the piles were bonded in groups into the reinforced concrete pile caps, which were suitably arranged to take the loads from the steel stanchions. A piled foundation was provided



Looking across the Medina estuary to West Cowes

FLIGHT Photo.